WHAT IS CLAIMED IS:

1. A DCA memory module, comprising:

a substrate;

at least a chip set having a plurality of chips formed side by side with each other, wherein the chips are adhered on the substrate and are electrically connected to the substrate, a plurality of circuits are located between the chips and electrically connect the chips to each other; and

a molding compound, encapsulating a portion of the electrical connection between the chip set and the substrate.

2. The DCA memory module of claim 1, wherein the substrate comprises;

a plurality of patterned-trace layers; and

at least an insulating layer located in between the patterned-trace layers, wherein a plurality of vias are formed in the insulating layer and electrically connect the patterned-trace layers to each other.

3. The DCA memory module of claim 2, wherein the insulating layer is made of a material selected from a group consisting of glass epoxy resin (FR-4, FR-5), bismaleimide-triazine (BT), epoxy resin or polyimide.

4. The DCA memory module of claim 2, wherein the line-patterned layers are formed by defining copper foil using photolithography.

5. The DCA memory module of claim 1, wherein the chip set is electrically connected to the substrate by a flip-chip technology , and the molding compound fills into a gap located between the chip set and the substrate.

6. The DCA memory module of claim 1, wherein the chip set is electrically connected to the substrate by a plurality of conductive wires, and the molding compound

encapsulates the chip set and the conductive wires.

7. The DCA memory module of claim 1, wherein the chip set comprises an even number of chips formed side by side as one group.

8. The DCA memory module of claim 1, wherein the chip set comprises an even number chips and a total number of chips in the DCA memory module is eight.

9. The DCA memory module of claim 1, wherein the chip set comprises an even number chips and a total number of chips in the DCA memory module is sixteen.

10. The DCA memory module of claim 8, wherein the chip set comprises one of the number of the chips selecting from a group of two, four or eight chips.

11. The DCA memory module of claim 9, wherein the chip set comprises one of the number of the chips selecting from a group of two, four or eight chips.

12. A DCA memory module, comprising:

a substrate;

at least a chip set, for adhering onto the substrate and electrically connecting to the substrate, wherein the chip set has a plurality of chips formed side by side as one group; and

a molding compound, for encapsulating a portion of the electrical connection between the chip set and the substrate.

13. The DCA memory module of claim 12, wherein the chip set is electrically connected to the substrate by a flip-chip technology, and the molding compound fills into a gap located between the chip set and the substrate.

14. The DCA memory module of claim 12, wherein the chip set is electrically connected to substrate by a plurality of conductive wires, and the molding compound encapsulates the chip set and the conductive wires.

15. The DCA memory module of claim 12, wherein the chip set comprises eight chips formed side by side as one group.

16. The DCA memory module of claim 12, wherein the chip set comprises an even number chips and a total number of chips in the chip set is eight.

17. The DCA memory module of claim 12, wherein the chip set comprises an even number of chips and a total number of chips in the chip set is sixteen.

18. The DCA memory module of claim 16, wherein the chip set comprises one of the number of the chips selecting from a group of two, four or eight chips.

19. The DCA memory module of claim 17, wherein the chip set comprises one of the number of the chips selecting from a group of two, four or eight chips.

20. A method of fabricating a DCA memory module, comprising:

providing a wafer having a plurality of chips;

performing a first test, for testing the chips on the wafer;

performing a burn-in test;

performing a second test, for testing the chips on the wafer;

performing a cutting process, for separating the chips into a plurality of chip sets, wherein each chip set comprises at least two chips formed side by side as a group;

providing a substrate of the memory module;

adhering the chip sets on a surface of the substrate of the memory module according to the number of the chip required from the DCA memory module, wherein the chip sets are electrically connected to the substrate of the memory module; and

encapsulating at least a portion of the electrical connection between the chip set and the substrate of the memory module with a molding compound.

21. The method of claim 20, wherein the chips in the chip set are electrically connected

to each other by a plurality of circuits within the chips.

22. The method of claim 20, wherein the chip set is electrically connected to the substrate by a flip-chip technology, and the molding compound fills into a gap located between the chip set and the substrate.

23. The DCA memory module of claim 20, wherein the chip set is electrically connected to the substrate by a plurality of conductive wires, and the molding compound encapsulates the chip set and the conductive wires.

24. The DCA memory module of claim 20, wherein the chip set comprises eight chips formed side by side.

25. The DCA memory module of claim 20, wherein a total number of chips in the DCA memory module is eight.

26. The DCA memory module of claim 24, wherein a total number of chips in the DCA memory module is sixteen.

27. The DCA memory module of claim 25, wherein the chip set comprises one of the number of chips selecting from a group of two, four or eight chips.

28. The DCA memory module of claim 26, wherein the chip set comprises the chip set comprises one of the number of chips selecting from a group of two, four or eight chips.